

Flood Protection Corridor Program

Project Evaluation Criteria

I. Introduction

Grant funds under the Flood Protection Corridor Program (FPCP) of the Costa Machado Water Act of 2000 (Proposition 13) are available to local public agencies and nonprofit organizations from the Department of Water Resources. Funds will be used to pursue FPCP goals, which are to provide “for the protection, creation, and enhancement of flood protection corridors through all of the following actions:

“(1) Acquiring easements and other interests in real property from willing sellers to protect or enhance flood protection corridors and floodplains while preserving or enhancing the agricultural use of the real property.

“(2) Setting back existing flood control levees and, in conjunction with undertaking those setbacks, strengthening or modifying existing levees.

“(3) Acquiring interests in real property from willing sellers located in a floodplain that can not reasonably be made safe from future flooding.

“(4) Acquiring easements and other interests in real property from willing sellers to protect or enhance flood protection corridors while preserving or enhancing the wildlife value of the real property.”

-- *[Water Code, Chapter 5, Article 2.5, Section 79037(b)]*

The following information constitutes the basis for determining whether a proposed project meets the legal criteria for funding under the Flood Protection Corridor Program and for evaluating the proposal to determine its priority in competition with all concurrent proposals. Proposals qualified under Section III of these criteria will be placed on one of two priority lists. If the proposal serves a flood protection need that is a high priority with the Department of Water Resources (other than through this Program) **and** it also rates a high priority *either* with the Department of Conservation for purposes of preserving agricultural land under the California Farmland Conservancy Program, *or* with the Department of Fish and Game for purposes of wildlife habitat or restoration, it will be placed on the “**A List**”. All other qualified projects will be placed on the “B List”. “**A List**” projects will be funded first, and when all “A List” projects have been funded to the Department’s stated limit, “B List” projects will be funded.

II. General Information

Project Name: Murrieta Creek Flood Control, Environmental Restoration, and Recreation Project

Project Location: Cities of Murrieta and Temecula

County: Riverside

Name and address of sponsoring agency or non-profit organization: Riverside County Flood Control and Water Conservation District, 1995 Market Street, Riverside, CA 92501

Name of Project Manager (contact): Warren D. Williams, General Manager-Chief Engineer

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Grant Request Amount: \$4,999,815.00

_____	<u>General Manager-Chief Engineer</u>
Warren D. Williams,	Title
Project Manager	

Date

Project Objective(s): Briefly describe your project and explain how it will advance FPCP goals. Please also include a detailed map of the immediate project site and another that shows its location within your geographical area ([See vicinity maps.pdf](#) and [Exhibit B, Preliminary design](#)).

Throughout this application, the term "Project" is used to refer to the federally authorized "Murrieta Creek Flood Control, Environmental Restoration and Recreation Project" in its entirety. "Phase" refers to a specific phase or phases

of the Project. The term "Proposal" is used to refer to activities that are the subject of this Grant Application. Project Phases 1-3 are the primary focus of this Proposal.

The District, in partnership with the U.S. Army Corps of Engineers (Corps) and the Cities of Murrieta and Temecula, is proposing to construct the Murrieta Creek Flood Control, Environmental Restoration and Recreation Project (Project) located in southwest Riverside County ([see Vicinity Map](#)). The proposed Project, which is to be built in four distinct phases, features an 8.5 mile multi-use greenbelt channel (Phases 1, 2 and 4) running along Murrieta Creek from a point southerly of "Old Town" Temecula upstream to Tenaja Road in the Murrieta area. The Project also includes a 220-acre multi-use detention/sedimentation basin (Phase 3) featuring 160 acres of rehabilitated/developed wetlands and 60 acres designated for public recreation. Total Project cost is currently estimated at approximately \$90 million. Each of the two cities has pledged \$10 million to the project ([Exhibit H, pp. 1-4](#)). An EPA Clean Water Act Section 319(h) grant will provide funding (\$318,154) for habitat restoration and water quality monitoring in Phase 1. The Corps will provide approximately \$2 million in design work and will fund 65% of the flood control and habitat restoration elements.

The Project's principal objectives are as follows:

1. Flood Hazard Mitigation – Construct a stable channel section with sufficient capacity to safely convey a 100-year flood event without damage to adjacent public and private property. This will be accomplished by widening the existing streambed, recontouring the streambanks and providing transitory water storage in the 220-acre multi-use detention basin.
2. Environmental Restoration – Incorporate native riparian vegetation into Project design and establish a permanent riparian corridor throughout the Project. Phase 3 provides for the establishment of a 160-acre wetlands area within the proposed detention basin.
3. Public Recreation - Provide expanded public recreation opportunities including hiking, biking and equestrian uses throughout the Project.

The Project's downstream terminus is located approximately one-half mile above Murrieta Creek's confluence with Temecula Creek, which forms the headwaters of the Santa Margarita River. Additional details concerning each of the Project's four phases can be found in 4(c) below. Aerial photos of the Phases 1-3 are provided as [Exhibit D](#).

Murrieta Creek is a major tributary of the Santa Margarita River. The Santa Margarita watershed is identified as "Category 1" in the California's Unified Watershed Assessment (#18070302). Federal resource agencies such as the US Fish and Wildlife Service have proclaimed the Santa Margarita River and its tributaries to be "aquatic resources of national importance" due to the presence of significant riparian habitat and their function as wildlife dispersal corridors. In the lower reaches (Phases 1 and 2), the creek's morphology is that of a well incised stream; however, the existing cross-sectional area has limited flood conveyance capacity (approx. 12,300 cfs), and the over bank areas, portions of which are extensively developed, are subject to periodic inundation. See [Exhibit A, \(1-14\)](#).

Portions of southwest Riverside County including the Murrieta, Temecula and French Valley areas are rapidly urbanizing. Currently, the population is increasing by approximately 6% per year. Together, the cities of Murrieta and Temecula have increased their combined population from 28,727 in 1990 to 101,998 in 2000 according to U.S. Census data. The adjacent unincorporated communities are also experiencing significant population growth. Projections for the Region of Influence are for 700,000 inhabitants by build-out in 2020. Corresponding with the accelerated population growth and increased urbanization are significant increases in impervious surface area and urban runoff.

The enclosed photos, [Exhibit A \(1-6\)](#), show some of the damages that occurred in Temecula's "Old Town" district as a result of the 1993 Murrieta Creek flooding. This flood event, which was estimated to be a 25-year event, resulted in extensive property damage in both Murrieta and Temecula. As proposed, the Project will significantly mitigate an existing major flood hazard, establish a permanent riparian habitat corridor and provide expanded public access and recreational opportunities adjacent to the creek.

Currently, the Murrieta Creek 100-year floodplain encompasses approximately 2,500 acres within the two cities and the unincorporated community of Wildomar. Upon Project completion, all of the properties adjacent to the Project, including the entire commercial downtown blocks of "Old Town" Temecula will be removed from the 100-year floodplain. The Project will eliminate mandatory flood insurance requirements for over 600 structures as well as significantly reduce premium rates for those individuals and businesses that elect to continue to carry flood insurance.

Recurring flood events and flood response measures currently limit the opportunity for establishment of a permanent habitat corridor within the existing watercourse. Bank erosion, sedimentation, and infestation of invasive non-native plant species, and the degradation of native vegetation have adversely affected Murrieta Creek's riparian functions and values. In addition to its flood control function, the Project will restore native riparian plant species, stabilize the stream banks, and invite the return of desirable avian, aquatic, and terrestrial species through the establishment of a permanent habitat corridor.

A third benefit will derive from the recreational and scenic elements of Murrieta Creek. The Project will provide improved public access and expanded recreational opportunities by incorporating hiking, biking and equestrian uses into the project design. Additional opportunities for the development of educational signage depicting the flora and fauna and establishment "pocket parks" throughout the Project's entire 8.5-mile length are being explored through contacts with interested community groups and appropriate public agencies.

Instead of pursuing a traditional single-purpose approach to flood control measures, the proponents have put forth a Project that integrates habitat restoration and recreational opportunities along with the flood hazard mitigation objective. This will be accomplished by widening the streambed and recontouring the streambanks following the creek's existing course. To the extent possible, the use of concrete or rock riprap slope stabilization will be minimized in favor of gabion baskets or other "bio-engineering" techniques. The Project design includes the establishment of a permanent strip of native riparian vegetation in the invert throughout the Project's 8.5-mile length.

This will establish an important habitat corridor providing native species with forage, refuge and transit within a rapidly urbanizing landscape. [Exhibit B](#) shows a plan view of the preliminary concept.

Upon completion of each phase of the Project, the District will assume responsibility for perpetual maintenance and operations. Public access trails along the embankments will be operated and maintained by the two participating cities.

The Nature Conservancy (TNC) has indicated that it is willing to assist with organizing volunteer cleanup efforts along the trails and within the creek. Additionally, TNC has expressed interest in assisting with supplemental re-vegetation efforts by sourcing native plant materials and organizing volunteers. The District will provide equipment and operators for debris removal, as well as expanding its role in organizing and coordinating community efforts, such as an 'Adopt-a-Trail' program. [Exhibit A, \(photos 25-27\)](#) demonstrate the initial effort to expand public access and participation. Additional efforts are being directed toward recruiting local school and resource conservation districts to utilize the Project as a focal point for environmental education programs.

Throughout this application, the term "Project" is used to refer to the federally authorized "Murrieta Creek Flood Control, Environmental Restoration and Recreation Project" in its entirety. "Phase" refers to a specific phase or phases of the Project. The term "Proposal" is used to refer to activities that are the subject of this Grant Application. Project Phases 1-3 are the primary focus of this Proposal.

III. Minimum Qualifications

Project proposals that do not meet the minimum qualifications will not be accepted.

- A. p The project proposes to use any granted funds for protection, creation, and enhancement of flood protection corridors [Water Code Section 79037(b)]. The principal objectives of the Project and this Proposal are flood hazard reduction and habitat restoration. Public recreation amenities are an ancillary Project objective but are outside the scope of this Proposal. The Project includes widening of the existing streambed and establishment of a permanent habitat corridor within the expanded floodway cross-section. Also included in this Proposal is the construction of a 220-acre multi-use detention basin which will provide significant transitory storage and flood peak attenuation along with the establishment of 166 acres of wetlands.
- B. p A local public agency, a non-profit organization, or a joint venture of local public agencies, non-profit organizations, or both proposes the project [Water Code Section 79037(a)]. The Riverside County Flood Control and Water Conservation District (District) is the sole applicant for this grant Proposal. The District was formed by the State Legislature in 1945, Chapter 1122, Statutes of 1945. The District's enabling statute appears in the Appendix to the Water Code, Chapter 48. The District is an agency of the State.
- The overall Project is jointly sponsored by the District, the US Army Corps of Engineers, the City of Temecula and the City of Murrieta. The funding applied for in this grant Proposal will be used to meet a portion of the communities' "local share" funding obligation.
- C. p The project will use the California Conservation Corps or a community conservation corps whenever feasible [Water Code Section 79038(b)]. The District has utilized the CCC in the past to assist with activities pertaining to its ongoing regional NPDES public education program. The District will strongly consider contracting with the CCC to furnish assistance with establishment of native vegetation, control of invasive species, and litter and trash removal. A budget item for this purpose is included in the Proposal.
- D. p If it is proposed to acquire property in fee to protect or enhance flood protection corridors and floodplains while preserving or enhancing agricultural use, the proponent has considered and documented all practical alternatives to acquisition of fee interest [Water Code Section 79039(a)]. Pursuant to the Corps'

real estate requirements, the District, as the Project's Local Sponsor, must obtain fee title to all non-publicly owned properties lying within the Project limits. This includes those privately held properties located entirely within the existing "floodway" along with those portions of privately held parcels which lie along overbank areas adjacent to the creek. [See Exhibit C.](#)

The bulk of the private property that must be acquired is located within the limits of the existing FEMA Regulatory Floodway; therefore, these properties have limited use/development potential or are effectively undevelopable due to the extent of the existing flood hazard and NFIP regulations. Where it is necessary to acquire properties within the overbank areas, only those portions of the properties necessary to accommodate the Project footprint will be sought. Generally, this will be limited to acquiring the vacant portions of those properties which are adjacent to top of bank or encroach into the floodway.

Land use adjacent to the creek is a mixture of commercial, residential and open space. Generally, existing land uses and commercial enterprise will be preserved and protected. No active agricultural operations will be directly impacted by Project real estate acquisition activities.

- E. holders of property interests proposed to be acquired are willing to sell them [Water Code Section 79040]. The District has already acquired a significant portion of the overall project right of way from willing sellers or through offers of dedication. The District's Board of Supervisors strongly encourages its staff to avoid condemnation proceedings wherever possible and pursue every reasonable effort to acquire project rights of way through negotiations with willing sellers. The District will make every reasonable effort to acquire the required Project right of way from willing sellers. Nevertheless, the possibility that some properties will have to be acquired through condemnation cannot be completely ruled out. Should it become necessary to acquire a specific parcel via condemnation, the District must act in accordance with State law, including making the necessary findings demonstrating public need and necessity. Additionally, should this Proposal be selected for funding, the District will strive to identify and acquire any such parcels prior to entering into a funding contract with the Department.

- F. if it is proposed to acquire property interests, the proposal describes how a plan will be developed that evaluates and minimizes the impact on adjacent landowners prior to such acquisition and evaluates the impact on the following [Water Code Section 79041]:

► *Floodwaters including water surface elevations and flow velocities*

The Corps is in the process of completing its final project hydraulic and hydrologic analyses. Generally, water surface elevations will be substantially lower than existing conditions. Flow velocities are expected to be somewhat lower.

► *The structural integrity of affected levees*

No levees are included in Phases I and II but the existing stream banks will be set back, stabilized and made less susceptible to erosion.

► Diversion facilities

Not applicable. None present within Project area.

► Customary agricultural husbandry practices

Not applicable. None present within Project area.

► Timber extraction operations

Not applicable. None present within Project area.

Properties adjacent to the project site will receive significant benefit from the project through reduced risk of flood damage and elimination of mandatory flood insurance requirements. Many of the developed properties adjacent to the project have experienced significant flood damage. Expanding the flood carrying capacity of the existing watercourse in conjunction with the attenuation of peak flood discharges (through transitory storage of flood flows in the detention basin) will result in containment of the 100-year floodplain within the stream banks thereby removing roughly 600 structures from the floodplain. This will eliminate mandatory requirements for purchase of flood insurance, significantly reduce the potential for flood damage and lower flood insurance premiums, thereby improving the local tax base as economic disincentives to developing adjacent properties are reduced or eliminated.

An ancillary project benefit to the community will be the creation of public access trails on both banks.

The proposal must also describe maintenance required for a) the acquired property, b) any facilities that are to be constructed or altered. As construction is completed on each Phase of the Project, that Phase will be turned over to the District for perpetual operation and maintenance. Routine maintenance activities are limited to mowing that portion of the invert reserved for flood conveyance and typical trash and debris removal activities. Once established, the in-stream habitat corridor is to be left unmaintained.

It is the District's intent to contract with CCC and engage local conservation organizations for assistance with invasive plant species control and habitat enhancement. The project's trail elements are to be maintained jointly by the sponsoring cities. Strong public support for the annual Santa Margarita Watershed Clean-up event provides additional trash and debris removal support.

G. p The project site is located at least partially in one of the following:
A Federal Emergency Management Agency (FEMA) Special Flood Hazard Area (SFHA).

1. Yes. The Murrieta Creek floodplain and regulatory floodway are delineated on Panels 0005(B) and 0010(B) of the Flood Insurance Rate Maps for the City of Temecula, revised November 20, 1996 (Community No. 060742) and Panels 2740(A) and 2745(A) of the City of Murrieta (Community No. 060751).

The California Department of Water Resources conducted the first detailed investigation of flood hazards associated with Murrieta Creek in the early 1970's. The resulting study, entitled "Riverside County Flood Hazard Investigation-Murrieta Creek (Bulletin No 183-2)" was published in May

1975. The Department's report was used as the basis for the preparation and adoption of FEMA's initial FIRMs for Murrieta Creek published in 1980.

IV. (340 points) Flood Protection Benefits

A. Existing and potential urban development in the floodplain (50)

Describe the existing and potential urban development at the site and the nature of the flood risk. The cities of Murrieta and Temecula are two of the fastest growing cities in California. The population has increased from around 28,000 to over 112,000 in the last decade alone. Local plans foresee the regional population in Southwest Riverside County (including currently unincorporated areas) reaching 700,000 in the next two decades.

While the community was once dominated by agriculture and ranching, the last two decades have seen a rapid transformation toward urbanization, principally residential, commercial development and light industrial development. Much of this urban development has occurred on the valley floor adjacent to the corridors of Murrieta Creek, Temecula Creek, Santa Gertrudis Creek and Warm Springs Creek. Agricultural activities, principally citrus, avocado, vineyards and some ranching continue in the outlying areas but well away from the Project limits.

The nearly four-fold increase in population has resulted in a significant increase in impervious surface area within the watershed and, consequently, even moderate rainfall events are capable of producing bank full or near bank full discharges on Murrieta Creek. Currently, it is estimated that flood discharges in excess of a 25-year flood event will result in flooding of the overbank areas and damage to public and private property. Without immediate action to attenuate the existing flood hazard, future flood damages and threats to public safety are a certainty.

Within the lower reaches of the Project (i.e. the historic "Old Town Temecula" district), existing encroachment within the flood fringe constrains the available project right of way and serves as a barrier to public access. The proposed acquisition of Project right of way adjacent to the Murrieta Creek floodway will protect the immediate overbank areas from future encroachments and provide a highly valuable public recreation amenity

1. How often has flooding occurred historically? 1862 was the largest known flood in the watershed. The second greatest was in 1884. Other major flood events occurred in 1916, 1938, 1943, 1969, 1978, *1980, 1991, 1992, *1993, *1995, and *1998. The events noted with asterisks were included in federal disaster declarations ([Exhibit A, Nos. 1-17](#)). It is believed that the increase in impervious area associated with the recent urbanization of the watershed contributes to an increase in the frequency of small to moderate flooding events in Murrieta Creek.
2. Discuss the importance of improving the flood protection at this location. Include the number of people and structures that are affected by the flood hazard, and the flood impacts to highways and roads, railroads, airports and

other infrastructure, and agriculture. As noted above, Murrieta Creek has exhibited chronic flood damage problems in the past. The watercourse essentially bisects both cities. Hence, flooding and inundation critically impact the area, isolating businesses, residences, and farms from the transportation network and critical emergency services. While the bulk of the ongoing urban development is occurring easterly of the creek, the costs for response and recovery operations impact the entire region. In the 1993 event, flooding caused approximately \$2,000,000 in damages to public facilities, \$7,500,000 in damages to private property, with public and private cleanup costs in excess of \$1,450,000. The greatest damages occurred in the historic "Old Town" district of Temecula and the area immediately upstream, the focus area of this Proposal.

The two cities bisected by Murrieta Creek have a combined population of 112,000. While much of the population resides east of the Project site, the two towns are the hubs of commerce, industry and transportation. Four bridges cross Murrieta Creek within the Project boundaries. Rancho California Road bridge, a major arterial road is the major east/west corridor of the valley. The approaches to this bridge can be inundated in even a 10-year event, effectively cutting off the easterly side of Murrieta Creek.

Winemaking is an important agricultural resource in the Temecula Valley. Flooding indirectly has adverse effects to the industry as the wineries rely upon the tourism aspects of "Old Town Temecula" as a tourist base for their businesses. There are 12 historically registered buildings in "Old Town". Ancillary businesses such as restaurants, hotels and galleries located in the historic "Old Town" area are adversely affected by flooding. Many of the financial institutions and shipping facilities utilized by the agricultural community are in the flood prone area. The project will remove 594 structures from the FEMA 100-year floodplain.

The project will benefit nearly all of the 112,000 residents of the two cities, the population of the unincorporated areas, the agricultural community, and a significant population in transit.

B. Flood damage reduction benefits of the project (100)

1. Does the proposed project provide for transitory storage of floodwaters? What is the total community need for transitory storage related to this water course and what percentage of the total need does this project satisfy? What is the volume of water and how long is it detained? Phase 3 of the Project features a 220-acre multi-purpose detention basin. Its role is vital in attenuating the velocity and peak downstream flow through Phases 1 and 2. The current design criteria calls for reducing the 100-year future condition inflow peak of 30,800 cfs to 15,300 cfs by storing approximately 3600 ac-ft of runoff. The detention time from point of maximum storage is approximately 15 hours. From an overall Project perspective, the basin provides 100% of the transitory storage needed to meet the Project's flood hazard mitigation and habitat restoration objectives.

The detention basin is also expected to provide some ancillary groundwater recharge benefits, although this is not a focus of the Project and, thus, no attempt has been made to quantify any such benefits. The applicant, as a flood control district, has no plans to initiate groundwater recovery; however, the local water district may realize some benefit.

2. Describe any structural and non-structural flood damage reduction elements of the project. (Examples of structural elements are levees, weirs, detention/retention basins, rock slope-protection, etc. Examples of non-structural elements are acquisition of property for open space, acquisition of land for flood flow easements, transitory storage, relocation of structures and other flood prone development, elevating flood prone structures, flood proofing structures, etc.) Throughout Phase 1 and 2, the morphology of the Murrieta Creek floodway is that of a well-incised streambed. Under this Proposal the floodway cross-section will be re-contoured and sufficiently widened to accommodate the twin objectives of flood hazard mitigation and habitat enhancement. The Corps of Engineers is currently preparing final design cross-sections and profiles for Phase 1.

Properties that are to be acquired are generally located within the FEMA floodplain/floodway. With respect to the acquisition of both developed and developable parcels, acquisition will be limited to the most vulnerable portions located within or immediately adjacent to the creek. The frontage of the properties will be retained by the current owners and will, as a result of being removed from the FEMA floodplain and mandatory flood insurance requirements, made more attractive for development.

Incorporated into the project are public access trails that will provide a buffer between developed property and the stream and habitat corridor to be restored. The District already owns the site of the 220-acre stormwater detention basin (Phase 3). The basin will provide transitory storage, peak flow attenuation and wetlands/habitat. Approximately 75% of the site will be configured as a wetlands habitat area with the balance being used as an active recreational area (playing fields).

3. By what methods and by how much dollar value will the project decrease expected average annual flood damages? The Corps of Engineers' preliminary hydrology report indicates that another 25-year event will overflow the upstream reaches with floodwaters reentering the stream, after flooding downtown Temecula. The reach from Rancho California Road downstream to First Street, the most constricted reach, can be overtopped in as little as a 10-year event.

The Corps Project feasibility study estimated annual 'without project' annual damages to be \$1,860,000. Additionally, confining the 100-year event to the stream will remove 594 (345 commercial) structures from the current FEMA designated Special Flood Hazard Area (SFHA). Conservatively, estimating the annual flood insurance premiums at \$1000 per structure, reflects an approximate \$600,000 in annual premium savings. The value of these structures is approximately \$259,000,000 with the contents estimated at an additional \$258,000,000. Twelve historically registered buildings are

located within SFHA. Restoration costs for these structures would be expected to be even higher than that of more recently constructed structures.

The Corps of Engineers has estimated that a 100-year event would cause \$50,505,500 in damages, cleanup costs of \$2,155,000, and emergency response costs of \$575,000. When completed, the Project will be capable of passing the 100-year flood discharge within the confines of the expanded floodway, thereby eliminating this significant flood hazard.

4. How does the project affect the hydrologic and hydraulic conditions at the project site and adjacent properties?

- a) Will the project reduce the magnitude of a flood flow, which could cause property damage and/or loss of life? Even in a "moderate" flood event, flows may inundate the overbank areas and cause considerable property damage and emergency response expense. For example, the January 1993 event was approximately a 25-year flood event but excessive sediment deposition within the floodway forced the floodwaters to flow into the overbank areas. The design criteria established for this project is to contain the 100-year flood discharge within an expanded Murrieta Creek floodway, thereby removing the adjacent development from the limits of the SFHA. The magnitude of flood discharges through the Project's lower reaches will be substantially reduced upon construction completion of the Project's stormwater detention basin/wetlands which is included in the scope of this Proposal.

A USGS gauging station is located near the downstream terminus of the Phase One reach. During the 1993 flood, the recorded peak flow was approximately 25,000 cfs. The Corps' initial feasibility study indicated that peak flows during a 100-year flood event would exceed 32,000 cfs at the gauge station and produce peak flows at upstream confluence points exceeding 37,000 cfs. Although completion of the Corps' final hydrologic design studies are pending, the 100-year peak flows on the order of approximately 19,000 cfs are anticipated. This will be accomplished through transitory storage of water at the upstream basin and through setting back the incised levels to convey up to 100-year peak flows with sufficient freeboard to prevent flood damages.

The construction of the detention basin (Phase 3) will provide transitory storage of at least 3,600 acre-feet and a concomitant reduction of peak flood flows. The Corps is currently completing its final hydrologic and hydraulic analyses and, pending final design refinements, the detention basin's transitory storage may be increased to approximately 4500 acre-feet.

- b) What are the effects of the project on water surface elevations during a flood event which could cause property damage and/or loss of life? Although completion of the Corps' final hydraulic studies is pending, the Project will provide protection against a 100-year flood event through the reduction of the FEMA Base Flood Elevations (BFEs) throughout Phases 1 and 2, the most vulnerable segments of the Project. This lowering of BFEs is to be achieved through a combination of flood peak attenuation and expansion of the existing floodway such that the peak 100-year flood discharge can be passed without inundation of the adjacent overbank areas.

- c) How are flow velocities impacted by the project during a flood flow which could cause property damage and/or loss of life? It is expected that the Corps' hydraulic analysis (pending) will show flood flow velocities to be reduced or remain unchanged throughout the project.

C. Restoration of natural processes (60)

1. Describe how any natural channel processes will be restored (for example: for channel meander, sediment transport, inundation of historic floodplain, etc.) and describe how these natural processes will affect flood management and adjacent properties. As a result of the increasing urbanization of its watershed, the morphology of Murrieta Creek has become somewhat unstable and its habitat values have been degraded. The stream banks in the lower reaches (Phases 1 and 2) are subject to increased erosion and become barren or populated with undesirable non-native species. Certain portions of the creek bed are subject to scouring and others are subject to sediment deposition. The Project's two principal objectives are to stabilize the stream cross-section and profile and establish a permanent riparian corridor within the stream banks.

Recurring flood events currently limit the degree to which native riparian vegetation can become established. Construction of the Project will stabilize the stream's profile and embankments, remove undesirable invasive plant species and encourage the establishment of a permanent corridor of native riparian vegetation that will provide enhanced habitat connectivity with two nearby Ecological Reserves.

2. Describe any upstream or downstream hydraulic or other effects (such as bank erosion or scour, sediment transport, growth inducement, etc.). Currently, Murrieta Creek is highly susceptible to bank erosion. Consequently, an extensive amount of sediment is transported downstream during major flood events. Some of this sediment accumulates in certain portions of the lower reaches of the creek where it can significantly reduce the carrying capacity of the floodway and exacerbate the existing flood hazard.

Pursuant to completion of the Project, bank erosion will be stabilized throughout the Project's 8.5 mile length through a combination of bank stabilization methods and the flood peak attenuation provided by the detention basin (Phase 3).

Phases 1, 2 and 3, totaling some 23,500 feet in length and the subject of this Proposal, are considered to be the most vulnerable reaches of Murrieta Creek. As can be seen in the accompanying photos ([Exhibit A](#)), the "Old Town" portion of Temecula, with its twelve historic buildings and several dozens of other flood prone structures is especially subject to flood damage. Throughout the "Old Town" district, Murrieta Creek is constricted to a narrow channel.

During the 1993 flooding event, USGS estimated the flows at 25,000 cfs. Sediment transport from upstream was deposited two to six feet in depth as the water neared the constriction point and overflowed the banks. Water

reached three feet in depth through the commercial section and left a sheetflow deposit of mud and debris throughout the area.

Downstream of the "Old Town" District, the flood flows returned to the stream channel but flow velocities were sufficient to scour the invert to bedrock. The embankments along all the lower reaches were stripped of vegetation and the now unstable banks eroded.

Even in events of lesser magnitude Murrieta Creek overflows the banks, particularly in the historic area of Temecula. The threat to life and property was recognized by DWR as early as 1975. The subsequent report (Bulletin 183-2) was used as the basis for the FEMA floodplain maps currently in use. At the time of the study the local population of Rancho California (now Temecula) was 2,000. The population has now grown to 62,000, increasing the potential for flood damage. No significant flood control facilities have been constructed beyond the construction of earthen embankments in Phase 2. Funding of significant and environmentally acceptable solutions precluded any assistance until the District was able to interest the Corps of Engineers in participating in the currently proposed Murrieta Creek Flood Control, Environmental Restoration and Recreation Project.

3. If the project includes channel modification or bank protection work, will riprap or dredging be part of the design? If so, provide an analysis of potential benefits and impacts.

In the lower reaches (Phases 1 and 2), past flooding events have eroded the embankments, scoured the streambed in some places, and caused sediment deposition in others. The work included in this Proposal includes excavation and sediment removal as well as bank stabilization. In scoured areas, earth will be replaced where needed.

Although the Corps' final Project plan and profile drawings are not yet available, a principal objective of this Project since its inception is that the Project fulfill its flood control objective while enhancing Murrieta Creek's natural functions and values as much as possible. To the extent practical, alternative methods of bank stabilization, e.g. bio-engineering techniques or gabion baskets, are to be employed.

Within the "Old Town" Temecula district, the available Project right of way is severely constricted by existing structures, most of which were constructed prior to the advent of NFIP regulations. Because the available right of way is extremely limited in this reach, it may be necessary to utilize riprap or other structural measures to stabilize the embankments. Nevertheless, any adverse impact upon the creek's riparian functions and values resulting from the unavoidable use of structural bank stabilization methods must be fully mitigated in accordance with the provisions of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).

D. Project effects on the local community (60)

1. How will the project impact future flooding on and off this site? Currently, the FEMA mapped 100-year floodplain adjacent to Murrieta Creek encompasses about 2500 acres ([see attached aerial photo](#)). This includes areas located

near the confluence of the creek's major tributaries, particularly Warm Springs Creek and Santa Gertrudis Creek. The Project, when completed, will contain the 100-year floodplain within the recontoured banks of Murrieta Creek.

An ancillary benefit of the Project is the inclusion of public access trails on either side of the creek. All combined, approximately 16 miles of trails will be constructed and connect with regional trail systems planned by Temecula, Murrieta and Riverside County. The eastern trail will be paved and serve as a pedestrian and Class 1 bicycle trail. The western trail will be constructed as an equestrian trail. There are several planned 'pocket parks' with educational signage planned. These are expected to be similar to an existing pocket park as seen in [Photos 25-27 \(Exhibit A\)](#).

2. How will the project affect emergency evacuation routes or emergency services and demands for emergency services? During the 1993 event, floodwaters rendered several of the bridges crossing Murrieta Creek impassable. Others were closed to traffic as a precaution, temporarily isolating the western bank. Emergency service vehicles could only access the area west of the creek via the Winchester Road bridge. The 1993 event was estimated as a 25-year flood, a larger event could result in a complete isolation of the western bank from emergency services and cutoff of emergency evacuation routes.

Two of the existing Murrieta Creek bridge crossings (Main Street and Washington Avenue) are classified by the Federal Highway Administration as "functionally obsolete". These two bridges would be considered probable candidates for structural failure in a large flood event. Included as part of the overall Project is the replacement or rehabilitation of four bridge crossings. Although the bridge replacements are not a part of this Proposal, they will provide "all weather" crossings over the expanded Murrieta Creek floodway.

3. Explain how the project will comply with the local community floodplain management ordinance and the floodplain management criteria specified in the Federal Emergency Management Agency's National Flood Insurance Program (FEMA's NFIP). The Project will result in lower BFEs and a significant reduction of SFHA, thus the Project conforms with NFIP regulations and the Cities' local floodplain management ordinances. The District will provide the Cities with the necessary engineering and technical data needed to support revisions to the currently effective FIRM/Floodway panels in accordance with NFIP regulations.

E. Value of improvements protected (70)

1. What is the assessed value of structural improvements that will be protected by the project? Upon completion of the project and revision of the effective FIRM panels, 594 structures, including 11 public buildings and 12 historically registered buildings will be removed from the FEMA 100-year floodplain (SFHA). The total structure value is approximately \$259,000,000. Content value is estimated at an equal amount. The costs for restoration of any damages to historically registered buildings is typically much higher than conventional structures.

2. What is the estimated replacement value of any flood control facilities or structures protected by the project? Because Murrieta Creek is largely "unimproved" in terms of flood control infrastructure, the value of flood control facilities and structures that the Project would protect is minimal. Following the 1993 flood event; however, the District expended approximately \$500,000 in force account work and let an additional \$400,000 contract to remove sediment and restore stream banks and re-establish interim levees along the upper reach (Phase 4). Nevertheless, the overall Project will provide significant protection to other types of infrastructure including numerous underground utilities, a sewage treatment plant and several bridge crossings.

Within the Project limits there are 24 underground utility lines that must be relocated or protected in place. No grant funding is sought for the utilities. They will benefit, however, from the overall project. The estimated costs of the relocation/protection is estimated at \$10,070,000.

Four bridges are to be replaced as a part of the overall project. None are a subject of the grant application. Two are being replaced using Federal Highway Administration grants. One of these, Main Street, is located in Phase One. The bridges will be designed in conjunction with the overall project and are valued at \$8,868,000 and will be protected by the Project.

A wastewater treatment plant belonging to the Rancho California Water District is located on the west bank, directly across from and adjacent to the multi-use basin (Phase 3). Attenuating floodwaters and providing transitory water storage in the basin will effectively protect the wastewater facility.

V. (340 points) Wildlife and Agricultural Land Conservation Benefits

Proponent should provide a statement of the relative importance of the project's wildlife and agricultural land conservation benefits. DWR will use the statement and all other project materials to assign a fraction of the total benefits to each type (wildlife (F_w) or agricultural land conservation (F_a)) so that the fractions total unity. Actual points scored for each type of resource will be multiplied by the respective fraction for each resource, and the wildlife and agricultural scores resulting for each type of resource will be added together.

A. (340x F_w points) Wildlife Benefits

Habitat values refer to the ecological value and significance of the habitat features at this location that presently occur, have occurred historically, or will occur after restoration.

Viability refers to the site's ability, after restoration if necessary, to remain ecologically viable with minimal on-site management over the long-term, and to be able to recover from any natural catastrophic disturbances (fire, floods, etc.).

A1. Importance of the site to regional ecology (70)

1. Describe any habitat linkages, ecotones, corridors, or other buffer zones within or adjacent to the site. How are these affected by the project? According to the U.S. Fish and Wildlife Service, Murrieta Creek is a biological resource of national significance because of its intrinsic values, its importance in the Santa Margarita River watershed, the habitat linkages it supports, and their proposed inclusion in the western Riverside County Multiple Species Habitat Conservation Plan. Murrieta Creek, residing in the upper Santa Margarita River watershed, links the areas to the east (including Diamond Valley Reservoir), Santa Rosa Plateau Ecological Reserve to the west, and Santa Margarita River system downstream. The wildlife linkages supported by Murrieta Creek provide breeding, migratory, or escape habitat for many animal species which reside in or utilize the lower Santa Margarita River watershed" (USFWS Draft Coordination Act Report, July 2000). The Project will increase the quantity and quality of native habitats and their wildlife functions. Integral to the Project is the construction of a continuous unmaintained habitat corridor in the invert of Murrieta Creek. This will vary in width from 60 to 200 ft and will interconnect Murrieta Creek with similar corridors in approximately one dozen tributaries, chiefly Temecula Creek, Santa Gertrudis Creek, Warm Springs Creek and Slaughterhouse Canyon Creek.

Phase 3 of the Project will include a 166-acre riparian and wetland habitat area within the multi-purpose detention basin. This will include 11 acres of buffer zone between the habitat area and the recreational area of the basin. The confluence of Warm Springs Creek will occur within the basin, providing corridor linkage.

Recurring flood events and interim flood mitigation efforts have periodically removed riparian habitat within Murrieta Creek. The District proposes that, after the channel is widened and terraced, an unmaintained habitat corridor of approximately 60-200 feet in width be re-vegetated and monitored in the stream bottom ([see Exhibit B for concept](#)). Trees such as willows, cottonwood, oak and sycamore will be reintroduced along with mulefat, mugwort and other native riparian and wetland species. The planting program will be monitored and maintained for a period of approximately two years to ensure that a native plant cover is achieved and any aggressive non-native species (primarily giant reed, aka *arundo donax* and tamarisk) do not out-compete the native vegetation. Invasive species monitoring and control will be ongoing. The balance of the invert will be hydroseeded with a native herbaceous mix. The maintained area will be mowed on an annual basis after temporary irrigation and monitoring assures the establishment of native vegetation. In addition, the sideslopes and a portion of the adjacent uplands will be planted with a mix of container plants such as Gooding's, Red, Sandbar and Arroyo Willow, mugwort and mulefat. Containerized and boxed trees and pole cuttings of trees such as oak and sycamore will be planted. Hydroseeding with a native seed mix will occur between the plantings.

2. Is the site adjacent to any existing conservation areas? Directly downstream (approx. ½ mile) is the entrance to the Santa Margarita Ecological Reserve operated by San Diego State University. The Santa Margarita River is perhaps one of the foremost examples of relatively undisturbed natural riparian systems in Southern California. The Santa Margarita River watershed provides one of the most expansive, unspoiled riparian habitats in southern California and supports approximately 70 rare, threatened, or endangered species (USFWS Draft Coordination Act Report, July 2000). Just to the west is the Santa Rosa Plateau Ecological Reserve, operated by The Nature Conservancy. Several tributary streams from the plateau link Murrieta Creek to the plateau. The habitat corridors will link Murrieta Creek with these two important preserves totaling over 12,000 acres and several protected species. The Warm Springs Creek and Santa Gertrudis Creek tributaries provide potential linkages to Eastside Reservoir, Lake Skinner and the Dr. Roy E. Shipley Reserve in the easterly portion of the watershed.
3. Describe any plans for aquatic restoration resulting in in-stream benefits. Most of the project site has been routinely maintained for flood control conveyance and affected by recurring flooding. Through "Old Town" Temecula there is some freshwater marsh that may be dependent upon an artificial discharge provided by Rancho California Water District. As of September 2002, that water is no longer being

furnished. If the artificial discharge is not restored, the vegetation is expected to consist of more riparian species than freshwater marsh. Drainage facilities from adjacent upland areas and other tributaries also provide sources of water. The restoration and increase of native riparian and wetland habitats throughout the Project footprint will improve Murrieta Creek's aquatic and riverine functions.

In order to promulgate and sustain a higher quality habitat in and along Murrieta Creek work must be undertaken to increase hydraulic capacity and attenuate the destructive flood flows. The proposed project will significantly increase both the hydraulic capacity and habitat values. This will be accomplished by setting back the embankments and recontouring the stream to ensure that storm flows are conveyed in the stream channel while reducing further habitat and property damage. Subsequent to this work, an unmaintained habitat corridor will be created in the invert of the stream. Slope protection will be accomplished by revegetation and stabilization. Temporary irrigation of the revegetation areas will ensure viability permanent establishment of a sustainable riparian corridor.

There are numerous types of habitat along the 5.3-mile reach of Phases 1, 2 and 3. Plantings, in concert with The Nature Conservancy, will restore natural functions and establish transition areas throughout the project. Marsh, riversidian sage scrub and riparian woodland will be re-established and expanded. By accommodating flows that occur during winter seasons and reducing the need to restore the existing under capacity profile, the natural processes, usually destroyed by such events, can be preserved.

4. Discuss any natural landscapes within the site that support representative examples of important, landscape-scale ecological functions (flooding, fire, sand transport, sediment trapping, etc.)? Murrieta Creek is one of the primary tributaries to the Santa Margarita River and the enhancement of riparian and wetland areas will improve many watershed level functions at this strategic location in the watershed.

A2. Diversity of species and habitat types (70)

1. Does the site possess any:
 - i. areas of unique ecological and/or biological diversity? Riparian and wetland areas are recognized as a rare and important resource in southern California. Sage scrub habitat is also a valuable wildlife resource.
 - ii. vegetative complexity either horizontally or vertically? The linear, horizontal and vertical vegetation structure varies throughout Murrieta Creek. The creek bottom consists of freshwater marsh and riparian habitat, while the sideslopes support larger riparian trees and some upland shrub species. Linear changes in

vegetation types due to variations in hydrologic sources provide additional vegetative complexity.

2. Describe habitat components including year-round availability of water, adequate nesting/denning areas, food sources, etc. Murrieta Creek is the downstream terminus of an approximate 220 square mile watershed. Numerous tributaries and drainage facilities from adjacent developed areas convey runoff into the project area. These numerous hydrologic sources are sufficient to support riparian and wetland communities. From 1993 until the summer of 2002, natural runoff was supplemented during the summer months by an artificial discharge by a local water district. The discharge artificially increased the coverage of freshwater marsh habitat. The discharge point is now well below the downstream terminus of the project, reducing the quantity of summer flows. If an alternative source of artificial discharge is not established, the vegetation may revert to communities that existed prior to 1993. Prior to 1993, the vegetation consisted of greater quantities of riparian vegetation and less freshwater marsh habitat.

While a final design is pending, restoration efforts will include the streambed, the embankments and the upland areas within the Project footprint. This will be irrigated by the District and partially funded by this grant. A contiguous habitat corridor will be established, providing vital nesting, denning, concealment, food sources and migratory opportunities. As noted above, several important tributaries will be linked by the project. The flood control elements will help ensure long term survival of the habitat.

The basin will include approximately 177 acres of riparian and wetland habitat area and buffer zone. The basin habitat areas will greatly improve the wildlife functions of Murrieta Creek while attenuating downstream peak flows and flood damages.

3. Describe any superior representative examples of specific species or habitats. The Santa Margarita River, which is immediately downstream of the project site, may support listed and sensitive species such as arroyo southwestern toad, southwestern pond turtle, coastal California Gnatcatcher, least Bell's vireo, southwestern willow flycatcher and other sensitive resources. Murrieta Creek downstream of "Old Town" Temecula supports relatively high quality open water habitat as well as avian, raptor, fish and amphibious species. Adjacent bench and upland areas provide a broad mix of habitat types. Enhancement of these areas could improve the quality of foraging and potential nesting habitat for the above species.
4. Does the site contain a high number of species and habitat types? List and describe. In and contiguous to the site are: Coast Live Oak Woodland (contiguous to d/s terminus), Southern cottonwood-willow

riparian forest (2 acres), Southern willow scrub (2.9 acres), riversidian sage scrub (.5 acres), open water/sand (1.5 acres), ephemeral wetland (6.8 acres), freshwater marsh (79 acres), mulefat scrub (12 acres), non-native grassland (13.2 acres), disturbed riparian (1.7 acres), disturbed habitat (15.7 acres), alkali marsh (.5 acres), riparian wetlands (177 acres), and a small area of smooth tar plant. A total of 9.9 acres are developed. 66 acres will be recreational area. The total project site is 389 acres. The various types are mapped on [Exhibit E, attached](#).

The September 2000, EIS/EIR lists [\(see Exhibit F, attached\)](#):

- 1 invertebrate species
- 4 fish species
- 2 amphibians
- 4 reptiles
- 51 avian species, and
- 7 mammalian species

None of these indigenous species are listed as threatened or endangered. It should be recognized that the site has been degraded by flood events. Restoration and defragmentation of the habitat areas will encourage occupation by other species, most notably the least Bell's vireo and the southwestern willow flycatcher, known to inhabit adjacent adequate areas of cottonwood-willow riparian forest.

5. Does the site contain populations of native species that exhibit important subspecies or genetic varieties historically present prior to European immigration? The site supports native riparian and wetland vegetation communities. Such native habitats are known to support many sensitive species, such as southwestern pond turtle and arroyo chub, and could potentially support the California red-legged frog, the southwestern arroyo toad and bird species. These native species likely pre-date European immigration and due to their dwindling populations throughout California, the preservation of local native species populations is important.

A3. Ecological importance of species and habitat types (100)

1. Discuss the significance of habitat types at this location and include any local, regional, or statewide benefits received by preserving or improving the area. Approximately 90 percent of the Santa Margarita River is unspoiled. From the estuary inland, the river passes through Camp Pendleton Marine Base. The balance of the river flows through the Santa Margarita River Ecological Reserve. Murrieta and Temecula Creeks are the headwaters of this unspoiled river. Due to the rarity of high quality riparian habitats in southern California, restoration of Murrieta Creek is expected to provide regional watershed and ecological benefits.

2. Does the site contain any significant wintering, breeding, or nesting areas? Does it fall within any established migratory corridors? What is the level of significance? How are these affected by the project? Restoration of native habitat along Murrieta Creek would improve the quality of wintering, breeding and nesting areas for numerous bird species. Migrating birds traveling from Mexico to the Salton Sea, Mono Lake, northern California and beyond could benefit from the increased acreage of higher quality native habitats.
3. Describe any existing habitats that support any sensitive, rare, "keystone" or declining species with known highly restricted distributions in the region or state. Does the site contain any designated critical habitat? How are these affected by the project? As previously described, the enhancement of open water, wetland and riparian habitats would increase the potential of Murrieta Creek supporting sensitive, rare, "keystone" and declining species that depend on these limited habitat areas. The Project site does not contain any designated critical habitat.
4. What is the amount of shaded riverine aquatic (SRA) and riparian habitat to be developed, restored, or preserved? The reach below Main Street in Temecula to the downstream terminus should be considered as SRA. The total area is about 40 acres. Upstream to Winchester Road (u/s terminus of Phase 2) should be considered as riparian habitat and is approximately 130 acres. Phase 3, the multi-use basin will be riparian habitat and encompass approximately 177 acres.

A4. Public benefits accrued from expected habitat improvements (60)

1. Describe present public use/access, if any. For instance, does or will the public have access for the purpose of wildlife viewing, hunting, fishing, photography, picnics, etc. In Phase 1, all of the parcels are currently privately owned, restricting public access. In Phase 2, about half of the affected parcels are owned by the District. Phase 3 is property of the District. Phase 4 is privately owned, though the District has flood control easements over about half of the properties. Funding through this grant application is for Phases 1, 2, and 3. Some properties have been received as offers of dedication ([see Appendix 1, sheets 1-3](#)).

Placing these properties in the public domain will enable and ensure a successful environmental restoration effort with a public access element. Additionally, the project will incorporate pedestrian/bicycle/equestrian trails on both banks of Murrieta Creek providing a continuous trail system between the cities of Temecula and Murrieta. It is planned to conjoin small public access parks along the routes. An example can be seen in [Exhibit A, \(Nos. 25-27\)](#). At

strategic points along the trail, fenced observation points will be constructed. This will provide educational opportunities for the local school districts. One of the sites in Phase 1 is being considered as a site for an environmental education center. Positive responses have been received from the local school districts, The Nature Conservancy and the Mission Resources Conservation District. This will benefit not only the public but will enable field trips for the area's 71,000 students.

The District, in cooperation with The Nature Conservancy (Santa Rosa Plateau Ecological Reserve), sponsors an annual Watershed Cleanup Day. This annual event boasts over 700 volunteers who remove debris from the stream and participate in an invasive plant species program. Several agencies, including the District, sponsor educational kiosks to educate the public about conservation and water quality issues.

A major component of the Project is the dedication of approximately 65 acres of the multi-purpose basin as a recreational area with sports fields and picnic areas. An 11-acre buffer zone will separate the sports park from the created riparian and wetland areas. Connector trails from the recreational area to Murrieta Creek would allow the public to access the Murrieta Creek trail system.

2. Discuss areas on the site that are critical for successfully implementing landscape or regional conservation plans. How will the project help to successfully implement the plans? The Draft Multi Species Habitat Conservation Plan for Western Riverside County (MSHCP) includes Sub-unit 1: Murrieta Creek, within the Southwest Area Plan area. The MSHCP lists California red-legged frog, Cooper's hawk, least Bell's vireo, southwestern willow flycatcher, tree swallow, white-tailed kite, yellow warbler, arroyo chub, bobcat, mountain lion and western pond turtle as Planning Species in the Murrieta Creek Sub-unit. MSHCP Biological Issues and Considerations for the Murrieta Creek Sub-unit include: 1) Maintain habitat connectivity within Murrieta Creek from the confluence of Temecula Creek to Cole Creek for wildlife movement and conservation of wetland species, 2) Maintain habitat connectivity between Murrieta Creek and Lower Warm Springs Creek to facilitate wildlife movement and conserve wetland species, 3) Maintain linkage habitat for Bobcat, 4) Maintain the area of Murrieta Creek at the confluence of Pechanga Creek, Temecula Creek, and Santa Margarita River for mountain lion linkage, and 5) Maintain habitat for arroyo chub, California red-legged frog and western pond turtle within Murrieta Creek and Cole Creek. Restoration of native habitat areas along Murrieta Creek will play a vital role in the successful implementation of the MSHCP goals.

Construction of a habitat corridor throughout the overall Project is critical to the re-establishment of nesting, denning and migration of

species, particularly avian species. As the Project lies between two major ecological reserves, establishing connectivity via the habitat corridor is one of the most important aspects of the Project. Several tributary streams will also be connected via the constructed corridor.

Equally integral is the 160-acre wetlands to be constructed within the multi-use basin upstream of the first two phases. This will include an 11-acre buffer zone between the wetlands and the recreation areas.

Another vital aspect will be the restoration of the stream banks with native species. Plantings, pole cuttings and rootwads will be incorporated into the banks to provide stabilization and erosion control. Murrieta Creek exhibits several types of ecosystems, from sage-scrub to canopied riparian forest. The Nature Conservancy has offered to assist in developing a planting palette that is sustainable and provide a more natural transition between the various ecosystems.

3. Describe the surrounding vicinity. Include the presence or absence of large urban areas, rapidly developing areas, and adjacent disturbed areas with non-native vegetation and other anthropogenic features.

The rapidly urbanizing Murrieta Creek watershed strengthens the need for restored native habitat areas. Although Murrieta Creek traverses through the cities of Murrieta and Temecula, resource agencies have stated that Murrieta Creek provides or could provide important wildlife corridor functions.

Within and adjacent to the first three Phases, the area is primarily urbanized. On the western bank, downstream from First Street, a variety of habitat areas exist. These transition into the confluence with Temecula Creek and finally into the Santa Margarita Ecological Reserve. Upstream of First Street on the western bank, the adjacent properties are primarily mixed residential.

The eastern bank, downstream of First Street is partially developed commercial properties. Upstream of First Street, is historical "Old Town" Temecula, transitioning into commercial development to Winchester Road, the upstream terminus. The project will include the acquisition of properties along Murrieta Creek. This will place the property into the public domain, proscribing further intrusion into the habitat and the floodplain. Public access will be maintained on constructed trails with observation points, rustic fencing and signage.

Phase 3, the multi-use basin, is also urbanized with commercial properties on the eastern bank. The south end of the basin is adjacent to Santa Gertrudis Creek. The north end contains the confluence with Warm Springs Creek. The eastern bank of Murrieta Creek is largely vacant land belonging to the Rancho California Water District. A wastewater treatment plant is located on the water

district property but not directly adjacent to the stream or Phase 3. The basin site is largely disturbed habitat with a large population of non-native invasive species, chiefly tamarisk and arundo cane.

Leaving the site in the current baseline condition will not prevent further encroachment and the proliferation of non-native vegetation species (arundo and tamarisk).

There are existing bridges at First Street, Main Street, Rancho California Road and Winchester Road. A two-lane low-water crossing is at Via Montezuma. There are seven underground utility lines that will be relocated or accommodated as a part of the project.

Do any surrounding areas detract from habitat values on the site?

The first two phases of the Project are urban on both banks. Phase 1 is commercially developed on the east bank and includes the historical "Old Town" district of Temecula. The western bank is single and multi-family residential (above First Street). Immediately below Phase 1 the area is coastal live oak riparian forest and interconnects with the Santa Margarita River Ecological Reserve.

Phase 2 is largely commercially developed along both banks. There is some residential development in the lower reach on the east bank. This reach includes the confluence with Santa Gertrudis Creek, a major tributary and will interconnect with the habitat corridor.

Phase 3, the multi-purpose basin and constructed wetlands, is zoned for commercial/light manufacturing. Adjacent properties are commercially developed.

Phase 4 is largely "rural residential". Phase 4 is not a subject of this application but has been included to better explain the overall concept of the Project. The entire valley flood, as pointed out earlier, is developing rapidly. Infill will rapidly consume any vacant land unless the properties are placed in the public domain. Placing vacant land into the public domain will preclude future encroachment of the corridor.

Irrigation through Phases 1 and 2 had been provided as part of a recycled water demonstration project. However, the permit is expired and irrigation cannot continue without development of the Project by the District. Environmental restoration in the streambed and on the embankments is integral to the Project and irrigation is a component of the overall plan. Another crucial element of the restoration plan is to ensure bank stabilization and to enhance nutrient uptake. A grant from the Environmental Protection Agency will assist in the Phase 1 restoration and water quality monitoring.

Scouring and sediment deposit in the lower reaches is evident from the pictures ([Exhibit A, Nos. 14-18](#)). This will be remedied through contouring and widening. Stabilization through the use of accepted bio-engineering techniques will be employed. Final design profiles by the Corps of Engineers are nearing completion.

The proliferation of invasive plant species is an ongoing problem. Arundo and tamarisk are present along the entire reach of the Project. Removal of invasives will be an ongoing maintenance responsibility of the District. As a part of the Santa Margarita River Watershed Day, volunteers collect debris and trash. This will continue throughout the project. Because of the predominately urban setting, trash accumulation is a constant problem. The California Conservation Corps could be utilized for tasks such as these.

4. Describe compatibility with adjacent land uses. Because of the proximity to, and the sustained growth of the area, the implementation of effective flood control and habitat conservation measures is crucial. Placing Murrieta Creek into the public domain along with the environmental restoration aspects of the project will secure a riverine environment free of future urban encroachment. The inclusion of public access trailways and small parks will enhance the adjacent properties.

Both cities and the County have trail plans for the area. This Project is fully compatible with the plans. Expectations are that the Project will enhance adjacent land use.

A5. Viability/sustainability of habitat improvements (40)

1. Describe any future operation, maintenance and monitoring activities planned for the site. How would these activities affect habitat values? Once the Project is complete, the full operation and maintenance of the site will be the responsibility of the District. Once established, the habitat corridor will be unmaintained. The balance of the floodway will be mowed annually to preserve the flood control aspects of the stream. The project will result in a significant increase in habitat values, since the existing undersized channel requires regular maintenance to keep the invert clear of obstruction.

The removal of invasive plant species will be an ongoing maintenance item. Regular monitoring to meet the required success criteria of the Corps will be required.

In concert with The Nature Conservancy, an annual Watershed Day is sponsored by the District. Volunteers, under District supervision, remove trash and debris from the stream. This is in addition to invasive species programs that are ongoing by the District. A federal (EPA) grant, administered by the SWQCB will partially fund restoration efforts and water quality monitoring for two years.

2. Does the site contain large areas of native vegetation or is it adjacent to large protected natural areas or other natural landscapes (for example, a large stand of blue-oak woodland adjacent to public land)? Immediately downstream (1/2 mile) is the Santa Margarita River Ecological Reserve, a conservancy of 4,400 acres. The project will provide connectivity through the planned habitat corridor that additionally ties in Temecula Creek. Embankment and headland

restoration will provide transition from riverine habitat to sage-scrub to oak riparian forest. The restoration will allow a transition with existing downstream habitat, then into the Conservancy.

Phases 1 and 2 are contiguous to the Phase 3 wetlands and multi-use basin. The basin site will dedicate 177 acres to native riparian and wetland habitats. Connection to Warm Springs Creek will be enhanced through the completion of a restoration project funded through the San Diego Regional Water Quality Control Board to a local Resources Conservation Board. The District is a party to this project but not a grantee.

Upstream and to the west of the project site is the Santa Rosa Plateau Ecological Reserve, an 8,000-acre eco-preserve operated by The Nature Conservancy. The District's Project will provide connectivity through the confluence of several stream tributaries from Murrieta Creek upstream to the plateau. The Nature Conservancy will be participating indirectly in the restoration process by assisting in the development of a planting palette and by serving as a vendor for native vegetative materials

3. Is the watershed upstream of the site relatively undisturbed or undeveloped and likely to remain so into the foreseeable future? Describe its condition. Immediately upstream of the Phases that are the subject of this Proposal a wetlands of approximately 177 acres is to be created within a multi-use collection basin. The property has already been purchased by the District and will remain dedicated wetlands in perpetuity.

Phase 4, upstream is currently "rural residential". As the area is rapidly developing, it is expected that suburban and light commercial development will continue. The last phase of the project places Murrieta Creek and the uplands in the public domain. This will limit encroachment that, in all probability, would adversely impact habitat values in this reach. Public access will be preserved through trails on the embankments. Phase 4 would result in the creation of an unmaintained riparian corridor within Murrieta Creek between the multi-use basin and Tenaja Road in Murrieta. This would complete the linkage between lower and upper Murrieta Creek and the Santa Rosa Plateau. Murrieta Creek has also been identified as a "Constrained Linkage" in the Draft Multi Species Habitat Conservation Plan for western Riverside County. The MSHCP will likely result in the long-term preservation of the upstream reaches of Murrieta Creek beyond the Project footprint as well as adjacent upland areas. The MSHCP proposes to provide connectivity between Murrieta Creek and the Santa Rosa Plateau.

Upstream of the site Murrieta Creek is a seasonal stream, dry throughout most of the year. During the winter season, the banks are subject to erosion. The wetlands site is sparsely covered and often

used as a dumpsite by locals. Tamarisk and Arundo are becoming the dominant species.

4. Describe any populations of native species or stands of native habitats that show representative environmental settings, such as soil, elevations, geographic extremes, or climatic conditions (for example, the wettest or most northerly location of a species within the state.) As previously described, the native riparian and wetland habitats in Murrieta Creek and the associated wildlife species are an increasingly rare resource in southern California, highly deserving of protection and enhancement. The Santa Margarita River watershed including Murrieta Creek has been described as an aquatic resource of national importance by both the Federal Environmental Protection Agency and the U.S. Fish and Wildlife Service. The watershed location of Murrieta Creek ensures adequate hydrologic input to continually support these riverine resources.

B. (340x F_a points) Agricultural Land Conservation Benefits

B1. Potential productivity of the site as farmland (120)

1. Describe the quality of the agricultural land based on land capability, farmland mapping and monitoring program definitions, productivity indices, and other soil, climate and vegetative factors.

The Project will have no direct impacts upon existing farmland or agricultural operations; however, it is expected that the Project will provide ancillary benefits to the region's agricultural industry. Existing land use adjacent to Phases 1, 2 and 3, the subject of this Proposal, is entirely urban. In Phase 4, the land use is principally rural residential.

Agriculture activities are important aspect of the area's overall economy, however, these operations are located well outside the Project limits. The principal activities include citrus and viticulture in the area east of Temecula, avocado groves in the hills to the west and a number of horse ranches located throughout the area.

An important transportation route, Rancho California Road, and several agricultural supply stores are located within or immediately adjacent to the Phases 1 and 2. A weekly Farmer's Market is based in the Old Town Temecula district. The principal Project benefits to the agriculture industry will be realized in terms of reduced flooding hazard of these supporting businesses and infrastructure.

2. Are projected agricultural practices compatible with water availability?

No agricultural activities are anticipated within the Project.

3. Does the site come with riparian, mineral, and/or development rights?

Typically, all property to be acquired for the Project will be acquired in fee and include such rights. All property acquired will be solely for the Project's flood control, habitat restoration and public recreation objectives. "Development" would be limited to creation of public trail and recreation amenities.

4. Is the site large enough to sustain future commercial agricultural production? The total Project footprint is large but agricultural activities would be impractical and none are foreseen.
5. Does the site contain any adverse or beneficial deed restrictions affecting agricultural land conservation? No.
6. Describe the present type of agricultural use including the level of production in relation to the site's productivity potential. What is the condition of the existing infrastructure that supports agriculture uses?
There are no existing agricultural uses within the Project. Agricultural development, within or adjacent to the site is not anticipated.

B2. Farming practices and commercial viability (40)

1. Does the area possess necessary market infrastructure and agricultural support services? Yes, see B1.1 above.
2. Are surrounding parcels compatible with commercial agricultural production? No. Land use adjacent to the project includes commercial, industrial, residential and rural residential.
3. Is there local government economic support in place for agricultural enterprises including water policies, public education, marketing support, and consumer and recreational incentives? The City of Temecula actively promotes the local wine industry to attract visitors to the area and sponsors various special events throughout the year in concert with wine production. These marketing efforts typically include cross-promotion with Temecula's "Old Town" historic district that is adjacent to the project site and will be protected by the project.
4. Describe any present or planned future environmentally friendly farm practices (no till, erosion control, wetlands avoidance, eco-friendly chemicals, recycling wastes, water conservation, biological pest control). Control of invasive plants such as arundo and tamarisk are integral to the scope of the project. Many of the stakeholders in the area depend on groundwater for agricultural and distribution purposes. An incidental benefit of project will be enhanced groundwater recharge.

B3. Need and urgency for farmland preservation measures (70)

1. Is the project site under a Williamson Act contract? No.
2. Describe the surrounding vicinity. Include the presence or absence of large urban areas, rapidly developing areas, low density ranchette communities, and adjacent disturbed areas with non-native vegetation and other human-induced features. Do any surrounding areas detract from agricultural values on the site? Prior to the mid-1980s, the region was almost entirely agricultural in nature. The area is now largely

urbanized featuring residential tracts, commercial and light industrial land use. Agriculture remains an important component of the area's economy but these operations, including avocados and a thriving "Wine Country", are located in the outlying rural areas.

Murrieta and Temecula are among the fastest developing residential areas in the state. Portions of Murrieta and Temecula are zoned to support low density "horse" properties, emphasizing a "rural residential" atmosphere. Urbanization has supplanted agricultural land uses contiguous to the Project site. The successful completion of the project will limit any further encroachment along Murrieta Creek.

3. What types of conversion or development are likely on neighboring parcels? What are the land uses of nearby parcels? Describe the effects, if any, of this project to neighboring farming operations or other neighboring land uses. Developed parcels adjacent to the site are predominantly single and multi-family residential, commercial and light manufacturing. Most enterprise caters to the residential nature of the community that is developing at a rapid pace and replacing agricultural enterprise.

4. Describe the relationship between the project site and any applicable sphere of influence. Phases 1-3 are located entirely within the incorporated cities of Temecula and Murrieta. A portion of Phase 4 is located in unincorporated Riverside County. The bulk of viable agricultural operations in the area is located in the outlying unincorporated areas.

Murrieta Creek bisects the towns of Murrieta and Temecula in the upper reaches of the Santa Margarita River watershed. Since 1990, these two towns have developed into the major metropolitan centers of a largely agricultural area to the east. As the centers of commerce, much of the packing, shipping and processing of agricultural products is conducted in the two cities.

To the immediate east and southeast of Temecula is a major wine producing region. The wine industry conducts much of its packaging and marketing in the metropolitan areas. The two cities are also financial centers for the agricultural business of the area.

Flooding of Murrieta Creek has direct effects on the region as disruptions in transportation, commuting, shipping and the everyday conduct of farm business is impacted. The Project site, dividing the cities and isolating them from the region during flood events, needs to be protected from flooding to maintain a regular stream of supply and commerce.

5. Is the agricultural land use on the project site consistent with the local General Plan? Does the General Plan demonstrate commitment to long-term agricultural conservation. Agricultural land uses are not

designated within the Project limits. The Project will have no direct impact on existing or planned agricultural land use. Within the Project limits, agricultural land use has been supplanted by residential, commercial and light industrial uses.

B4. Compatibility of project with local government planning (50)

1. Is the agricultural land use on the project site consistent with the local General Plan? Does the General Plan demonstrate commitment to long-term agricultural conservation? The cities' General Plans do not designate agricultural land uses within the Project limits. The Project will have no direct impact on existing or planned agricultural land use. Within the Project limits, agricultural land use has been supplanted by residential, commercial and light industrial uses.
2. What is the present zoning and is the parcel developable? Within Phases 1-3, properties are zoned for single and multi-family residential, commercial and some light manufacturing. The great majority of these properties front on streets running parallel to Murrieta Creek. Many of the back property lines run to the middle of the stream. Hence, the frontage of the parcels are developable but the portions located within the incised stream (floodway) cannot be developed. This is shown in the enclosed aerial photos ([Exhibit C](#)). The undevelopable portions of the properties will be acquired as Project right of way.
3. Is there an effective right to farm ordinance in place? No.
4. Is the project description consistent with the policies of the Local Agency Formation Commission? Phases 1-3, the subject of this Proposal, are located entirely within the cities of Temecula and Murrieta; therefore, the Project is not subject of any LAFCO proceedings. The two cities are co-sponsors of the Project.
5. Will the project as proposed impact the present tax base? The Project is expected to have a beneficial effect on the local tax base. Confining the 100-year flood event to the Project's "floodway" and eliminating the existing flood hazard in the overbank areas, will likely encourage development of contiguous properties that currently are economically unattractive, thereby increasing the local tax base.
Additionally, existing tax revenues will not have to be expended on emergency response, cleanup and recovery costs due to flooding.

B5. Quality of agricultural conservation measures in the project (50)

1. For agriculture lands proposed for conservation, describe any additional site features to be conserved that meet multiple natural

resource conservation objectives, including wetland protection, wildlife habitat conservation, and scenic open space preservation where the conservation of each additional site feature does not restrict potential farming activities on the agriculture portions of the site. Although no agricultural lands are included in the Project, the project includes significant creation of riparian and wetlands habitat. Both types of habitat are becoming increasingly important in this rapidly urbanizing area. In addition to their habitat value, the riparian corridor and wetlands will fulfill important scenic and open space preservation goals. Public access trails will be placed on both sides of the stream along with pocket parks and observation points (not a part of this application).

2. What are the present biological/ecological values to wildlife? How are these values affected by the proposed project? Recurring flood events as shown ([Exhibit A, Photos 7-17](#)) currently limit the degree to which the existing stream is able to support riparian habitat. Repeated disturbance encourages repopulation by non-native invasive species. Trash and other debris accumulates in the stream ([Photos 19-20](#)). Until the summer of 2002, reclaimed water was released into the stream (near the confluence with Santa Gertrudis Creek). This water provided the source of the ephemeral wetlands near Main Street in Temecula. No such irrigation is now being provided.
Implementation of the Project will result in establishment of more permanent high quality habitat providing wildlife with an important refuge in an otherwise highly urbanized setting.
3. Is the project proponent working with any local agricultural conservancies or trusts? Not at this time. The Project site is generally unsuitable for agriculture operations.
4. Does conservation of this site support long-term private stewardship of agricultural land? How does this proposal demonstrate an innovative approach to agricultural land conservation? Agricultural lands are not directly involved in this Proposal. The Project will result in *public* stewardship of the Murrieta Creek floodway.
5. Without conservation, is the land proposed for protection likely to be converted to non-agricultural use in the foreseeable future? The lands adjacent to Murrieta Creek are zoned for residential, commercial and light industrial uses. However, implementation of the Project at this time will maximize the opportunity to secure public rights of way and protect Murrieta Creek from further encroachments. As development continues in the overbank areas, efforts to secure right of way will become more difficult.

VI. (320 points) Miscellaneous Benefits and Quality of Proposal

A. Size of request, other contributions, number of persons benefiting, cost of grant per benefited person (40)

Estimated Total Project Cost	\$90,000,000
Amount of FPCP Grant Funds Requested (Budget, Appendix 1)	\$4,999,815
Amount of Local Funds Contributed (est.)	40,000,000
Amount of In-kind Contributions (est.)	10,000,000
Additional Funding Sources (US Army Corps of Engineers)	40,000,000

Number of persons expected to benefit	287,940
Flood Protection Corridor Funds per person benefited.*	\$17.36

(* Count as beneficiaries those receiving flood benefits, recreational users of habitat areas protected by the Project, and consumers of food products from agricultural areas conserved by the Project.)

143 SF Residence removed from floodplain X 3.1 per household	= 443
59 Mobile Homes removed from floodplain X 3.1 per household	= 183
36 multi family removed X 8 units per structure X 3.1	= <u>893</u>
(per household based upon 2000 census) subtotal	1,969
356 comm. and pub. bldgs. removed from floodplain X 1.5 per	= <u>534</u>
subtotal	2,503

Pedestrian/Bike/Equestrian Trail users, Phases 1 and 2	
8296 users per year/6 (factor for repeat users)	=1,383

(Figures per City of Temecula Master Plan)

Current population of Temecula only = 57,716 (per 2000 census)

Estimate 10% receiving indirect flood benefits through reduction of inundation of roads, shopping areas, roads, workplace access

Total population = 57,716 X 10% = 5,772

Substantial population in unincorporated County areas, not calculated

Upstream inundation beneficiaries in Murrieta =44,282

Recreational users of multi-use basin (Corps' estimates of 4500 users per year) =234,000

TOTAL BENEFICIARIES = 287,940

B. Quality of effects on water supply or water quality (90)

1. Will water stored by the project provide for any conjunctive use, groundwater recharge, or water supply benefit? The District has received an EPA 319(h) water quality grant for \$318,000. The site was identified by the State Water Quality Board as a target project. The funds will be used to provide partial restoration of vegetation and bank stabilization in Phase One. The main thrust of the project is to reduce sediment transport and to improve water quality through nutrient uptake. Studies have shown elevated levels of phosphorous in the stream. Water quality testing is a part of this grant. Additional benefits

will restore, maintain and protect WILD, RARE, AND BIOL beneficial uses. Educational benefits will be realized through the construction of observation points and educational signage along the public access trails.

2. Does the project fence cattle out? Free range cattle are not present within the Project limits.

In order to maintain public access adjacent to the project, exclusionary fencing is to be avoided. Fencing at pocket parks and observation points will discourage access to the habitat areas. The development of a vegetative 'curtain' will be implemented to discourage access to the stream invert and habitat corridor along the remaining reaches.

3. Does the project pass water over newly developed fresh water marsh?

Phases 1 and 2 will construct and irrigate approximately 65 acres of habitat corridor and marsh in the stream bed. This will be operated and maintained by the District in perpetuity.

Phase 3 will create approximately 167 acres of wetland and an additional 11 acres of buffer zone in the multi-use basin. The habitat elements will be maintained by the District in perpetuity.

4. Does the project trap sediments? It is expected that the multi-use detention basin (Phase 3) will also serve to trap sediment. Implementation of flood peak attenuation and slope stabilization throughout the project should significantly reduce in-stream bank erosion and the generation of sediments.

The District will be responsible for Project operation and maintenance. Preliminary sedimentation analysis for the basin indicates that sediment removal should be required approximately once every 23 years.

C. Quality of impact on underrepresented populations or historic or cultural resources (60)

1. Does the project benefit underrepresented populations? Explain.

The area along the westerly bank of Murrieta Creek across from "Old Town" Temecula includes extensive low-income housing. A number of these dwelling units were impacted by the 1993 flood event. Implementation of the Project will benefit these resident through the elimination of flood hazards and improved access to the transportation network during flood events. Due to their proximity to the Project, these residents would also be expected to be among the principal beneficiaries of the Project's scenic and recreation features.

2. Are historical or cultural resources impacted by the project? Explain.

Phase 1 of the Project passes through the historic "Old Town" district of Temecula. This area has experienced repeated flooding

[\(see photos 3-7, Exhibit A\)](#). The historic "Old Town" district is one of the area's prime tourist attractions. It contains numerous historic buildings including 12 that are listed on the State Register of Historic Places. Upon completion of the Project, the entire "Old Town" district will be removed from the FEMA 100-year floodplain.

D. Technical and fiscal capability of the project team (60)

1. Does the project require scientific or technical expertise, and if so, is it provided for in the grant proposal? The Project design and construction is a joint effort by the District and the US Army Corps of Engineers; the cities of Murrieta and Temecula are co-sponsors. Nearly \$2,000,000 has been expended by the Corps on the planning and design process to date. The project has been in planning stages since 1995 and a fully documented Corps feasibility report is included with this Proposal. The District has successfully partnered with the Corps on several major projects. The District's professional engineering and support staff are highly skilled and experienced in the planning and execution of complex public infrastructure projects.
2. Grant funds will be available in phases. What monitoring and reporting mechanisms are built into your administrative plan to track progress, initiation, and completion of successive phases? As with any federal project the Project documentation requirements are very stringent. The District's Finance Division includes highly experienced staff with the ability and technical resources to support complex budget and project accounting requirements. Quarterly reports documenting progress, expenditures and milestones will be required. The administrative costs for this grant application are included in the administrative costs of the application. Four percent (\$183,236) is included for administrative costs including those associated with construction and right of way acquisition.
3. Please outline your team's management, fiscal and technical capability to effectively carry out your proposal. Mention any previous or ongoing grant management experience you have. As the flood control agency for one of the largest counties in California, the District has a long history of managing large, complex and multi-agency public works projects. The District's professional staff includes over 35 professional engineers specializing in the various disciplines associated with modern stormwater management practices. The engineering function is supported by a full range of support services staff including finance, accounting, information systems, GIS, survey and mapping, and right of way acquisition.

The District has extensive experience working in partnership with federal, state, adjoining county, local municipal and special district agencies to deliver projects. Currently the District is managing grants

from the EPA, the Federal Emergency Management Agency and the State Water Resources Control Board. The types of grants are for disaster recovery, hazard mitigation, capital improvement, water quality monitoring and environmental monitoring.

E. Coordination and cooperation with other projects, partner agencies, and affected organizations and individuals (80)

1. List cost sharing and in-kind partners and any other stakeholders involved with your project and indicate the nature of their contribution, if any. Address the team's ability to leverage outside funds. The Murrieta Creek Flood Control, Environmental Restoration and Recreation Project is a joint venture with the U.S. Army Corps of Engineers, the cities of Murrieta and Temecula and the District. The federal government will be responsible for approximately 65% of the cost of the flood control and environmental restoration elements. The remaining 35% will be shared between the District and cities. The recreation element will be equally shared between the Corps and the cities. The local sponsors are responsible for 100% of the right of way and utility relocation costs.

There will be four bridge replacements included as part of the overall project. Funding for these elements is the responsibility of the two cities. Currently, they have a commitment from the Federal Highway Administration for 80% funding of two of the bridges. The cities are also seeking funding through Proposition 12 (a parks grant program) for trails, pocket parks and other public access amenities.

2. Does your project overlap with or complement ongoing activities being carried out by others (such as CALFED, the Sacramento and San Joaquin River Basins Comprehensive Study, the Delta levee program, local floodplain management programs, the Reclamation Board's Designated Floodway program, or a multiple objective regional or watershed plan)? If so, indicate any coordination that has taken place to date or is scheduled to take place in the future. The Project complements local floodplain management programs. It is also consistent and/or complementary with the Riverside County Multi-Species Habitat Conservation Plan (MSHCP), the Cities and County Regional Trails Plan and the Santa Margarita Watershed Management Plan being developed by the County of San Diego.
3. Will this application, if approved, begin the next phase of a previously approved project or advance an ongoing project substantially toward completion?

This project has been in the planning stages since 1995. In September 2000 the EIR and final feasibility study were completed and circulated. In January of 2003, the District's Board formally adopted the EIR in compliance with the requirements of CEQA. Final design

profiles should be completed by mid-March of 2003. Property appraisals and public hearings should be completed at about the same time.

The next phase will be the actual project implementation. This will take place over a period of years. A tentative construction schedule from the US Army Corps of Engineers is attached ([Appendix 2](#)).

The District, with the design phase nearing completion and with the support of the co-sponsors, is ready to commence with this worthwhile and much needed project. Seven years of planning and preparation and nearly \$2,000,000 have brought the Project to its present juncture.

This Project will make significant contributions to flood control efforts, reduction of flood risk, enhanced habitat restoration, and increased public access. Coupling District funds, local sponsor commitments, the EPA grant, and the anticipated federal funding will ensure that any monies received as a result of this Proposal will be expediently put to use implementing the goals of the Flood Protection Corridor Program in a highly visible and cost effective project.

4. Describe how the proposal demonstrates a coordinated approach among affected landowners, local governments, and nonprofit organizations. If other entities are affected, is there written support for the proposal and a willingness to cooperate? In developing the Project, the District has worked closely with local Congressional representatives, the two cities and local public interest groups. Additionally, both cities have pledged to provide \$10 million toward the Project. A draft agreement between the District (the non-federal sponsor) and the US Army Corps of Engineers has been prepared and should be in place prior to any contractual agreement pertaining to a successful grant application. The Corps has already expended approximately \$2 million dollars toward project design.

Both the cities of Murrieta and Temecula have adopted resolutions financially supporting the Project. The Nature Conservancy (Santa Rosa Plateau Ecological Reserve) sponsors a Cleanup Watershed Day in concert with the District. The Conservancy has also agreed to assist in the development of a planting palette for the restoration efforts. They may also provide volunteer labor and act as a source for plants. The District currently works with the Mission Resource Conservation District to promote water quality education programs in the local schools. They have indicated an interest in promoting an expanded educational program utilizing the public access trails and parks along Murrieta Creek. An outreach program to the local schools has commenced to further utilize the trails and planned parks. A local bicycle club agreed to co-sponsor an Urban Streams Restoration grant proposal with the District in 2002. A local equestrian group has already developed an equestrian park on District property within the site ([Exhibit A, Photos 25-27](#)). The Elsinore-Murrieta-Anza Resource

Conservation District has a Proposition 13 grant for stream restoration at Warm Springs Creek, contiguous to the Project and on District right of way. This project is being coordinated with the City of Murrieta and the District. Support letters from many of these participants and others are included in [Exhibit H](#).

The District already has acquired sizeable portions of the required right of way, including 270 acres to be dedicated for the multi-purpose basin. The cities of Murrieta and Temecula will be contributing lands that they currently own.

Thank you for taking the time and effort to fill out this application. Please send one hard copy with required signatures by 3:00 p.m. on February 14th, 2003 to:

Earl Nelson, Program Manager
Flood Protection Corridor Program
Division of Flood Management
1416 9th Street, Room 1641
Sacramento, CA 95814

Please also send an electronic copy by 3:00 p.m. on January 31, 2003 to:

Bonnie Ross at bross@water.ca.gov